

REMARKS

The Examiner is thanked for the consideration given to this application.

This amendment amends claims 12-21, and adds claims 22-24. Claims 12-24 thus remain in this application and are presented for examination. No new matter is added by this amendment.

Claim Rejections under 35 USC §112, second paragraph

Claims 12-21 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims have been amended to remedy the stated basis of rejection.

Arts Rejections under 102(b) and 103(a)

Claims 12-15 were rejected under 35 U.S.C. §102(b) as being anticipated by Sampson et al (US 2,705,634). Claim 16 was rejected under 35 U.S.C. §103(a) as being unpatentable over Sampson et al in view of Schmidt (US 6,443,271). Claims 12-15 and 17-21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Allsop et al (US 4,244,602) in view of Sampson et al.

Traverse

These rejections are respectfully traversed.

The present invention pertains to a damping device for damping the relative motion between the handle (24) and a rod (22) of a pole (20). By way for example, Figure 7 has been reproduced below.

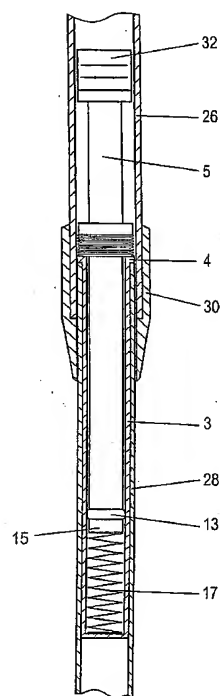


FIG. 7

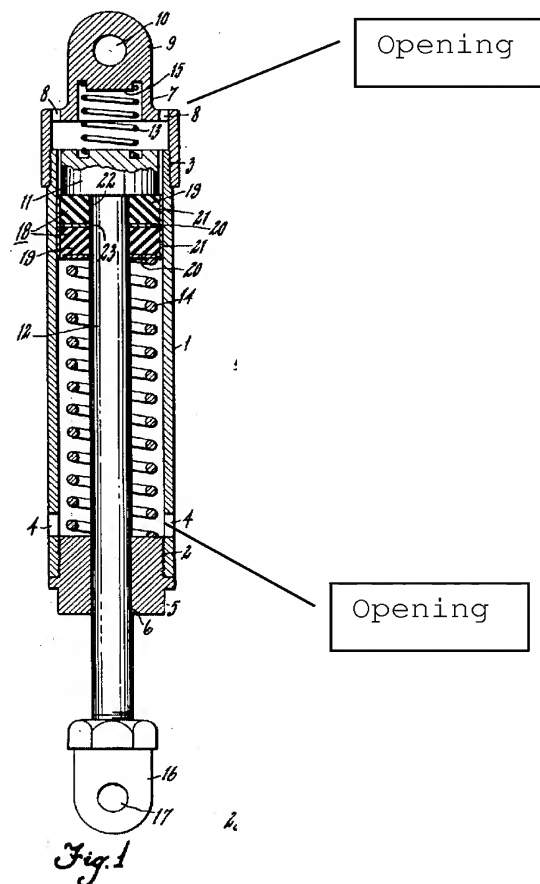
The present invention, e.g. as per claim 12, is a device including a tube (3), a rod-shaped body (5), an elastically deformable seal (13) and a helical compression spring (17) clamped between i) the closed lower end (19) of the tube (3) and ii) the free lower end of the rod-shaped body (5). Upon a displacement of the rod-shaped body (5), a gas compression spring including a gas-filled space locates within the tube (3) between the closed lower end (19) of the tube (3)

and the seal (13) bearing against the inner surface of the tube (3).

In this way, the seal acts as an automatic valve, as set forth in claim 23.

Sampson

Sampson pertains to a frictional resistance type shock absorber. Figure 1 is referred to by the Office Action, which is represented below.



In Sampson, the low frequency vibrations/shock is mainly absorbed by springs (13, 14) and the resilient displacement disc (19) interposed between the spring (14) and the piston (11).

In Sampson, the frictional resistance is controlled in proportion to the impact. (See column 1, lines 51-53) Therefore, both chambers are connected to the ambient air via openings to exhaust/intake air and no gas compression spring can exist.

Also, because the surface of the deformable resilient discs (19) continuously compressed against the wall of the cylinder (1) under the pre-loaded spring (see column 2, lines 56-60) the deformable resilient discs (19) thus cannot act as a valve.

Further, as amended, Sampson does not disclose all the features recited in the claims, e.g., the tube within the rod aspect.

Sampson thus does not anticipate the present invention.

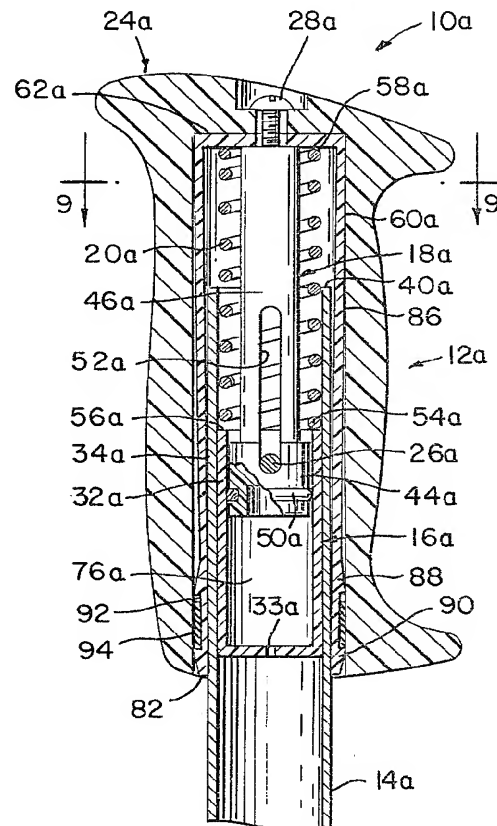
Allosp et al.

Page 5 of the Office Action then asserts that one skilled in the art can achieve the present invention by adding the spring biasing elastic insert of Sampson into the modified piston cylinder device of Allsop et al. in view of increasing user's comfort.

However, as discussed above, Sampson teaches to have openings on the wall of the cylinder (1), Sampson thus teaches away the possibility of sealing air with the spring biasing elastic insert. One skilled in the art would not incorporate the resilient disk (19) of Sampson into any kind of piston to seal air, as suggested by the Office Action.

Further, Allosp et al. pertains to a shock-absorbing ski pole. Figure 8, which is referred to by the Office Action, is reproduced below.

FIG. 8



In Allsop et al., a spring is mounted above the piston head to partially absorb the shock of the pole and a pair of piston and cylinder mounted below the spring then absorbs the rest of the shock.

The helical compression spring is supported in the tube that is fixed stationary in the pole. Even if it is assumed that pressure is temporarily built up in the chamber under the action of the piston that moves downward in the chamber in the tube part with the bottom, it is actually a gas pressure shock absorber and not a gas compression spring because a bleed orifice (33a) is designed at the bottom of the tube. Therefore, the pressure that has built up is more or less promptly reduced again, and thus the spring action ceases.

Because the bleed orifice (33a) is especially designed at the bottom of the cylinder (16a) to ease the shock, Allsop et al. actually teaches to use an opening to confirm the users.

That is, one skilled in the art thus would not combine a spring to bias an elastomeric insert to increase the available damping force.

In contrast to the present invention, the instant claim recites the different modes of the seal, namely:

"under the displacement of the rod-shaped body (5) into the tube (3) the helical compression spring (17) creates the pressure on the seal (13) that deforms the seal (13) to bear against the inner surface of the tube (3)"

One skilled in the art would not be taught or suggested by Sampson and Allsop et al., in singular or in combination, to achieve the present invention and the rejection accordingly should be withdrawn.

For these reasons, all the independent claims are patentable. Allowance of all the claims is respectfully requested.

Conclusion

Prior art of record but not utilized is not to be pertinent to the instant claims.

The objections and rejections have been overcome, obviated or rendered moot, and no issues remain. The Examiner is accordingly respectfully requested to place the application in condition for allowance and to issue a Notice of Allowance.

Should there be any matters that need to be resolved in the present application; the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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